

Woodstove Changeouts- Neighborhood PM Reductions

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What is a "Changeout"?

- Joint program- Industry/Government
- Targeted at replacing old woodstoves & Fireplace Inserts
- Education (promotion) program
- Modest discounts – little or no Government subsidy
- Details worked out jointly

Residential Wood Smoke - Why do we care? (EPA)

- **Fine particle pollution (PM_{2.5})** - ~6 % (420,000 tons) of total PM_{2.5} direct emissions
 - ~80% from woodstoves
- More than all of the US petroleum refineries, cement manufacturing and pulp and paper plants combined.
- Changing out 10 old, dirty inefficient woodstove is = to taking 70 diesel buses off the road.

Is it just about Woodstoves?

- NO!
- Old freestanding woodstoves & Fireplace Inserts are the Targets
- Open Fireplaces often included
- Replacement may be EPA certified woodstoves, Pellet stove, or gas heater

What Are The Tools?

www.epa.gov/woodstoves/

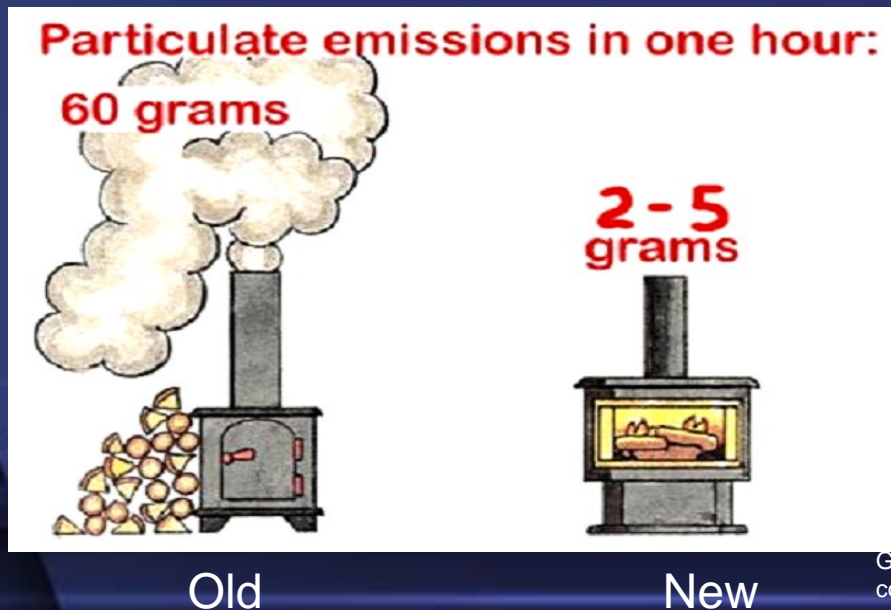
- Clean Burning Wood Stoves and Fireplaces



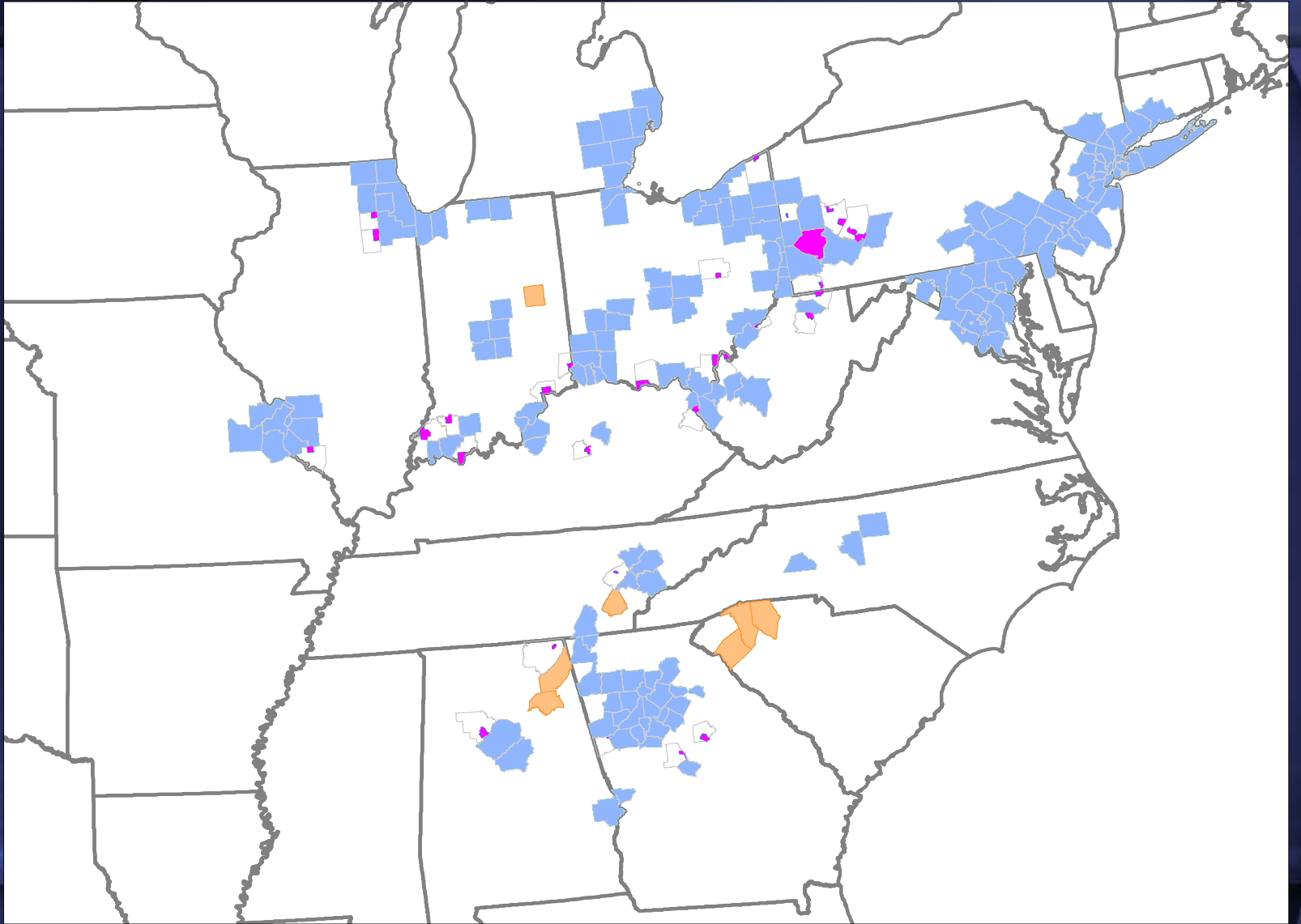
- Basic Information
- **Finding the Right Size and Model—Talk to a Professional**

Woodstove Changeouts: The Opportunity...

- **Cleaner burning, more efficient technologies are available**
- **Can measure the benefits and cost effective**
- **Changing out 20 old woodstoves will reduce 1 ton of PM_{2.5} per year**



Graphic adapted from California EPA publication. * US EPA is conducting literature research on pre-NSPS woodstove emission estimates



“Traditional Changeouts”

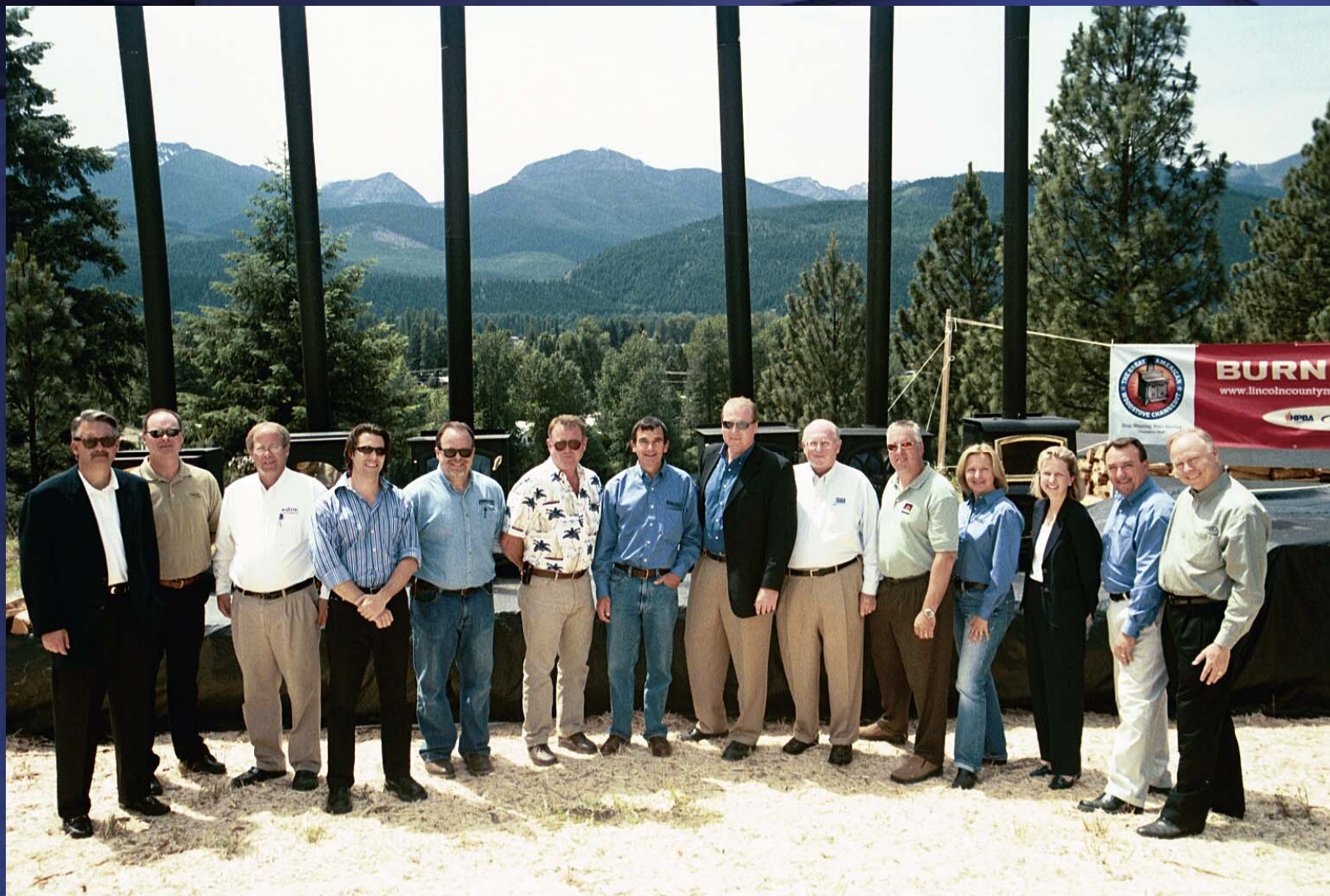
- SW PA – Late Sept, 11 counties
- Washoe county (Reno) Nevada
- Dayton-this winter
- Butte County, California
- Discussions with
 - SF Bay Area
 - Southeastern U.S. site

SEP's

- Supplemental Environmental Program
- EPA enforcement programs mandate “Good Works” in settlement
- 2 underway currently
 - Virginia
 - Western Washington State

Libby, Montana– A Whole Town Pilot Project

- NAA for PM 2.5
- Woodsmoke 82% of Winter Season PM
- No Industrial Sources left
- Little Winter Road Dust
- 1200 HH use some wood heat
- Goal is to remove ALL old units





Overall U.S. Target- 10 to 14 *Million* old stoves & inserts

- EPA, Industry, & Health organizations beginning to work together to ramp up this program
- New “Tools” in the pipeline
 - HPBA-www.woodstovechangeout.org/
 - EPA –Changeout website